

## **Section II. (REMARKS)**

The claims pending herein are 1, 2, 4-7, 10, 14, 15, 17-21, 53-57 and 59.

### **Allowable Subject Matter**

In the October 19, 2007 Office Action, the Examiner objected to claims 7, formula G only, and claim 57, indicating that they would be allowable if each were rewritten in independent form. Applicants acknowledge same.

### **Amendment to the Claims**

Claim 1 has been amended to excise the species 2-mercaptobenzothiazole and mercaptobenzothiazole, without prejudice, and to include the limitation that the oxirane species comprise a species selected from the group consisting of: oxirane, methyl-, polymer with oxirane, ether with 2,2'-(oxidoimino)bis(ethanol) (2:1), N-(3(C9-11-isoalkyloxy)propyl)derivatives, C<sub>10</sub>-rich; and oxirane, methyl-, polymer with oxirane, mono(octylphenyl)ether. Support for the oxirane addition can be found in Formulations E, F, and G as filed. In addition, claim 1 was amended to correct the spelling of 2-mercaptobenzimidazole. Accordingly, no new matter has been added herein and no new search is necessitated.

Claim 55 has been amended to remove the term "ACC" which was previously excised from claim 1, from which claim 55 depends.

### **Request for Rejoinder Reminder**

Applicants respectfully request rejoinder of method claims 24-31, 33-36, 39, 43-50, 58 and 59 upon allowance of the pending composition claims 1-2, 4-7, 10, 14, 15, 17-21 and 53-57.<sup>2</sup> Towards that end, withdrawn method claim 24 has been amended in a manner consistent with pending composition claim 1.

### **Objection under 35 U.S.C. §132(a)**

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<sup>2</sup> Rejoinder was previously requested in the response to the April 18, 2005 Office Action, filed April 27, 2005.

In the October 19, 2008 Office Action, the Examiner objected to claim 1 for introducing new matter into the disclosure. Specifically, the Examiner indicated that the broad language "oxirane species" finds no support and raises issues of new matter.

Applicants have amended claim 1 to further recite that the oxirane species comprise a species selected from the group consisting of: oxirane, methyl-, polymer with oxirane, ether with 2,2'-(oxidoimino)bis(ethanol) (2:1), N-(3(C9-11-isoalkyloxy)propyl)derivatives, C<sub>10</sub>-rich; and oxirane, methyl-, polymer with oxirane, mono(octylphenyl)ether, thereby obviating this objection. Withdrawal of same is respectfully requested.

**Double Patenting Rejection Under the Judicially Created Doctrine of Obviousness-Type Double Patenting**

In the October 19, 2007 Office Action, the Examiner rejected claims 1, 2, 4-7, 9-10, 14-15, 17-21 and 53-57 under the judicially created doctrine of obviousness-type double patenting. Specifically, the Examiner stated that said claims are:

"unpatentable over claims 1-7, 9-17, 21-22 and 33-48 as amended on 17 August 2007 of co-pending application No. 10/389,214 (and its teachings and suggestions in the specification on at least paragraphs 9, 12, 13, 17, 18, 21, 23, Examples 2, 4 and 5). Applicants, assignee and their counsel may and should disagree, urge and state on and for the record that each of the claims as originally filed is self sufficient. There has not been and will not be relied on any embodiment and any application for any purpose) considered in view of En et al (2004/0134682)." (see the October 19, 2007 Office Action, the paragraph bridging pages 4-5).

Although the punctuation of the foregoing paragraph, which was copied verbatim, is confusing, it appears as though En et al. is being used as a secondary reference in the judicially created obviousness-type double patenting rejection. Applicants acknowledge same.

According to MPEP 804 (I)(B)(1):

"If the [obviousness-type double patenting] rejection is the only rejection remaining in the later-filed application, while the earlier-filed application is rejectable on other grounds, a terminal disclaimer

must be required in the later-filed application before the rejection can be withdrawn.”

It is noted that the earlier co-pending application, U.S. Patent Application No. 10/389,214 is still pending.

If in the future, co-pending U.S. Patent Application No. 10/389,214 remains rejectable on other grounds, the obviousness-type double patenting rejection is the only rejection remaining to the presently pending case AND the presently pending claims are an obvious variation of the invention defined in claims 1-7, 9-17, 21-22 and 33-48 of co-pending U.S. Patent Application No. 10/389,214 in view of En et al. (which can only be objectively assessed when the only rejection remaining in the presently pending case is the obviousness-type double patenting rejection), applicants will submit the required terminal disclaimer.

#### **Rejection of Claims and Traversal Thereof**

In the October 19, 2007 Office Action:

claims 1, 2, 4-7, 9-10, 14-15, 17-21 and 53-57 were rejected under 35 U.S.C. §112, first paragraph;

claims 1, 2, 5, 10, 14-15, 17, 19-21, 53 and 56 were rejected under 35 U.S.C. §102(e) as anticipated by, or, in the alternative under 35 U.S.C. §103(a) as being unpatentable over Hsu (U.S. Patent Application Publication No. 20050176603);

claims 1, 2, 4, 5, 10, 14-15, 19-21, 53 and 56 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ichiki (U.S. Patent Application Publication No. 20010021488) in view of En et al. (U.S. Patent Application Publication No. 20040134682) and Hsu; and

claims 1, 2, 5, 10, 14-15, 17, and 53 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoi et al. (U.S. Patent Application Publication No. 20070003859) in view of En et al. and Hsu.

These rejections are traversed and reconsideration of the patentability of the pending claims is requested in light of the following remarks.

#### **Rejections under 35 U.S.C. §112, first paragraph**

In the October 19, 2007 Office Action, claims 1, 2, 4-7, 9-10, 14-15, 17-21 and 53-57 were rejected under 35 U.S.C. §112, first paragraph. Specifically, the Examiner indicated that the broad language "oxirane species" finds no support in the specification.

As introduced hereinabove, applicants have amended claim 1 to further recite that the oxirane species comprise a species selected from the group consisting of: oxirane, methyl-, polymer with oxirane, ether with 2,2'-(oxidoimino)bis(ethanol) (2:1), N-(3(C9-11-isoalkyloxy)propyl)derivatives, C<sub>10</sub>-rich; and oxirane, methyl-, polymer with oxirane, mono(octylphenyl)ether, thereby obviating this objection. Withdrawal of same is respectfully requested.

#### **Rejections in view of Hsu**

In the October 19, 2007 Office Action, claims 1, 2, 5, 10, 14-15, 17, 19-21, 53 and 56 were rejected under 35 U.S.C. §102(e) as anticipated by, or, in the alternative under 35 U.S.C. §103(a) as being unpatentable over Hsu (U.S. Patent Application Publication No. 20050176603). Applicants traverse such rejection.

As introduced in the response to the July 9, 2007 Office Action, Hsu has a filing date of November 5, 2004 and a priority date of February 11, 2004 (U.S. Provisional Patent Application No. 60/543,801). In the Declaration under 37 CFR 1.131 (hereinafter the "131 Declaration") filed in August 17, 2006, applicants attested to conception and reduction to practice of the presently claimed invention prior to such of the earliest claimed June 18, 2003 date of Yokoi '761. Importantly, Yokoi '761 actually predates Hsu, and as such, the conception and reduction of practice of the presently claimed invention was clearly before the earliest claimed February 11, 2004 date of Hsu.

In response, the Examiner stated that:

"the submission evidences under Rule 131 filed on 10 September 2007 have been fully considered but are insufficient to cover each of all embodiments as applied in Hsu, at least the applied "2-mercaptobenzothiazole and 2-mercaptobenzimidazole." (see, the October 19, 2007 Office Action, page 7, lines 14-17).

Applicants have submitted herewith a Declaration under 37 CFR 1.132 (hereinafter the "132 Declaration," see **Appendix A**) whereby the inventors attest to the fact that the acronym "2-MBI"

used in the 131 Declaration dated August 17, 2006 corresponds to "2-mercaptobenzimidazole" and that the evidence provided in the 131 Declaration predates the earliest claimed February 11, 2004 date of Hsu. Accordingly, the 131 Declaration dated August 17, 2006 was evidence of the completion and possession of the cleaning compositions disclosed and claimed herein.

Further, applicants amended claim 1 to excise "2-mercaptobenzothiazole" and "mercaptobenzothiazole" without prejudice.

Accordingly, withdrawal of the rejection of claims 1, 2, 5, 10, 14-15, 17, 19-21, 53 and 56 as being anticipated by and/or obvious in view of Hsu is respectfully requested.

#### **Rejections under 35 U.S.C. §103(a)**

In the October 19, 2007 Office Action, (a) claims 1, 2, 4, 5, 10, 14-15, 19-21, 53 and 56 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ichiki (U.S. Patent Application Publication No. 20010021488) in view of En et al. (U.S. Patent Application Publication No. 20040134682) (hereinafter En) and Hsu, and (b) claims 1, 2, 5, 10, 14-15, 17, and 53 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoi et al. (U.S. Patent Application Publication No. 20070003859) (hereinafter Yokoi) in view of En and Hsu. Applicants traverse such rejections.

In both cases, the Examiner admitted the reliance on Hsu for the 2-mercaptobenzimidazole teaching (see, e.g., the October 19, 2007 Office Action, page 9, lines 8-13 and page 11, lines 8-13), however, the Hsu teaching, with regards to the 2-mercaptobenzimidazole, is not considered prior art and as such, Hsu cannot be relied on for establishing a *prima facie* case of obviousness.

Accordingly, withdrawal of these rejections under §103 is respectfully requested.

#### **Petition for Extension of Time/Fees Payable**

Applicants hereby petition for a one (1) month extension of time, extending the deadline for responding to the October 19, 2007 Office Action from January 19, 2008 to February 19, 2008. The fee of \$120.00 specified in 37 CFR §1.17(a)(1) for such one (1) month extension is hereby enclosed.

The total fee of \$120.00 is being paid by Electronic Funds Transfer. Authorization is hereby given to charge any deficiency in applicable fees for this response to Deposit Account No. 13-4365 of Moore & Van Allen PLLC.

**Conclusion**

Claims 1, 2, 4-7, 10, 14, 15, 17-21, 53-57 and 59 are in form and condition for allowance. If any additional issues remain, the Examiner is requested to contact the undersigned attorney at (919) 286-8090 to discuss same.

Respectfully submitted,

MOORE & VAN ALLEN PLLC

Date: February 19, 2008

By: 

Tristan Anne Fuierer  
Registration No. 52,926  
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## **APPENDIX A**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re United States Patent Application of:	) Docket No.: 020732-97.668 (7493)
Applicants: RATH, Melissa K., et al.	) Conf. No.: 4823
Application No.: 10/792,038	) Art Unit: 1795
Date Filed: March 3, 2004	) Examiner: LE, Hoa Van
Title: COMPOSITION AND PROCESS FOR POST-ETCH REMOVAL OF PHOTORESIST AND/OR SACRIFICIAL ANTI-REFLECTIVE MATERIAL DEPOSITED ON A SUBSTRATE	) Customer No.: 24239

**DECLARATION UNDER 37 CFR §1.132 IN U.S. PATENT APPLICATION NO. 10/792,038**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

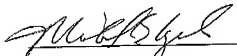
MICHAEL B. KORZENSKI, and THOMAS H. BAUM hereby declare:

1. THAT we are co-inventors of the subject matter disclosed and elected in United States Patent Application No. 10/792,038 filed March 3, 2004 in the names of Melissa K. Rath, David D. Bernhard, David W. Minsek, Michael B. Korzenski, and Thomas H. Baum and entitled, "COMPOSITION AND PROCESS FOR POST-ETCH REMOVAL OF PHOTORESIST AND/OR SACRIFICIAL ANTI-REFLECTIVE MATERIAL DEPOSITED ON A SUBSTRATE," hereafter referred to as the "Application."
2. THAT the Application relates to compositions and processes for removing photoresist and/or sacrificial anti-reflective coating (SARC) from a substrate having said materials thereon. The elected claims relate generally to a cleaning composition including a quaternary base, at least one alkali or alkaline earth base, and at least one additional component selected from the group consisting of a chelator, an oxirane species, and combinations thereof.

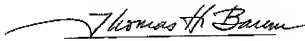


3. THAT the undersigned executed a Declaration under 1.131 (hereafter "the 131 Declaration") on August 14, 2006 as evidence of the completion and possession of the cleaning compositions disclosed and claimed in the Application prior to June 18, 2003 (see Exhibit A for a copy of the 131 Declaration).
4. THAT the undersigned do hereby declare that the acronym "2-MBT" used throughout the 131 Declaration corresponds to 2-mercaptobenzimidazole.
5. THAT we are aware that the Application has been examined by the United States Patent and Trademark Office and the claims of the Application have been rejected on various grounds including the disclosure of:
  - Chien-Pin Sherman Hsu (U.S. Patent Application Publication No. 2005/0176603) (hereinafter "the Hsu reference") filed on November 5, 2004, based on U.S. Provisional Application No. 60/543,801, filed February 11, 2004.
6. THAT the 131 Declaration previously submitted was evidence of the completion and possession of the cleaning compositions disclosed and claimed in the Application prior to June 18, 2003. Accordingly, the 131 Declaration is also evidence of the completion and possession of the cleaning compositions disclosed and claimed in the Application prior to the Hsu priority date of February 11, 2004.

As a below-named declarant, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
MICHAEL B. KORZENY

Date 2-19-08

  
THOMAS H. BAUM

Date 2-19-08

**EXHIBIT A**

AUG. 15. 2006 11:51AM ATMI (203) 830-2123

NO. 4519 P. 2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re United States Patent Application of	Docket No.:	020732-97.608 (7493)	
Applicant:	RATH, Melissa K., et al.	Conf. No.:	4823
Application No.:	10/792,038	Art Unit:	1752
Date Filed:	March 3, 2004	Examiner:	LE, Hoa Van
Title:	COMPOSITION AND PROCESS FOR POST-ETCH REMOVAL OF PHOTORESIST AND/OR SACRIFICIAL ANTI-REFLECTIVE MATERIAL DEPOSITED ON A SUBSTRATE	Customer No.:	24239

DECLARATION UNDER 37 CFR §1.151 IN U.S. PATENT APPLICATION NO. 10/792,038

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

MELISSA K. RATH, DAVID D. BERNHARD, DAVID W. MINSEK, MICHAEL B. KOUZNETS, and THOMAS H. BAUM hereby declare:

1. THAT we are co-inventors of the subject matter disclosed and elected in United States Patent Application No. 10/792,038 filed March 3, 2004 in the names of Melissa K. Rath, David D. Bernhard, David W. Minsek, Michael B. Kouznetz, and Thomas H. Baum and entitled, "COMPOSITION AND PROCESS FOR POST-ETCH REMOVAL OF PHOTORESIST AND/OR SACRIFICIAL ANTI-REFLECTIVE MATERIAL DEPOSITED ON A SUBSTRATE," hereinafter referred to as the "Application."
2. THAT the Application relates to compositions and processes for removing photoresist and/or sacrificial anti-reflective coating (BARC) from a substrate having said materials thereon. The elected claims specifically relate to the following composition:

AUG. 15. 2006 11:52AM ATMI (203) 830-2123

NO. 4519 P. 3

1. A cleaning composition including an active cleaning composition (ACC), wherein said ACC consists of a quarternary base in combination with at least one of alkali and alkaline earth bases and said cleaning composition is useful for removing photoresist and/or artificial anti-reflective coating (SARC) materials from a substrate having such material(s) thereon.
3. THAT we are aware that the Application has been examined by the United States Patent and Trademark Office and the claims of the Application have been rejected on various grounds including the disclosure of:
- Yokoi, et al. (U.S. Patent Application Publication No. 2004/0259761) (hereinafter "the Yokoi reference") filed on June 10, 2004, based on U.S. Provisional Application No. 60479,146, filed June 18, 2003, the content of which is unknown because it was filed in Japan (hereinafter "the Yokoi Provisional Application").
3. THAT Exhibit A attached herewith includes two and exact copies of pages of David D. Burnard's and Melissa K. Ratz's laboratory notebooks, and that all concepts, experiments and acts disclosed on the laboratory notebook pages were conducted in the United States before the filing date of the Yokoi Provisional Application cited heretofore.
4. THAT all the dates have been blacked out on the attached laboratory notebook pages but all dates are prior to the date of June 18, 2003, which is the filing date of the Yokoi Provisional Application;<sup>2</sup> that information on the laboratory notebook pages that may not be in the public domain has been redacted; and that every one of the attached laboratory notebook pages (Appendix A) discloses a composition including an active cleaning composition (ACC), wherein said ACC consists of a quarternary base in combination with at least one of alkali and alkaline earth bases. Thus, the combination of disclosures described herein, provides ample support for the presently claimed invention.
5. THAT we offer Exhibit A with this Declaration as evidence of the completion and possession of the cleaning compositions directed and claimed in the Application prior to the June 18, 2003 date of the Yokoi Provisional Application reference.

<sup>1</sup> Melissa K. Ratzky has numerous heretofore known "Ratz"

<sup>2</sup> assuming that the Yokoi Provisional Application enables the Yokoi reference.

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ATMI (203) 830-2123

NO. 4519 P. 4

As a below-earned defendant, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that each willful false statement may jeopardize the validity of the application or any patent issued thereon.

Melissa K. Rath

MELISSA K. RATH

Date 8/14/06

Date

DAVID D. BERNHARD

David W. Minner

DAVID W. MINNER

Date 8/14/06

Date

Michael B. Korzenik

MICHAEL B. KORZENIK

Date 8/14/06

Date

Thomas E. Baum

THOMAS E. BAUM

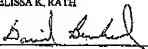
Date 8-14-06

Date

As a below-named declarant, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

\_\_\_\_\_  
MELISSA K. RATH

\_\_\_\_\_  
Date

  
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DAVID D. BERNHARD

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Date 8/15/06

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DAVID W. MINSEK

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MICHAEL B. KORZENSKI

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Date

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THOMAS H. BAUM

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Date

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NO. 4519 P. 5

**EXHIBIT A**





Project No.		Book No.	
[Redacted]		5	
Project Name			
[Redacted]			
Project Description			
[Redacted]			
Project Status			
[Redacted]			
Project Manager			
[Redacted]			
Project Sponsor			
[Redacted]			
Project Budget			
[Redacted]			
Project Timeline			
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Project Risks			
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Project Deliverables			
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Project Milestones			
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Project Communications			
[Redacted]			
Project Stakeholders			
[Redacted]			
Project Approval			
[Redacted]			
Project Review			
[Redacted]			
Project Closure			
[Redacted]			

Witnessed & Understood by	Date	Reviewed by	Date
<i>Alvin C. King</i>		<i>Alvin C. King</i>	

Project No. \_\_\_\_\_  
Book No. \_\_\_\_\_ TITLE \_\_\_\_\_

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